

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
10/629,506	07/29/2003	Yogendra Shah	I-2-0371.1US	6720	
24374 75	590 10/12/2004		EXAMINER		
VOLPE AND KOENIG, P.C.			BEAMER, TEMICA M		
DEPT. ICC	74 SUITE 1600	ART UNIT PAPER NU			
UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET			2681		
PHILADELPHIA, PA 19103			DATE MAILED: 10/12/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Applicati	on No	Applicant(s)				
				SHAH ET AL.				
Office Action Summary		10/629,50 Examine		Art Unit				
	•	Temica M		2681				
The MAII II	IG DATE of this communication a				ldross			
Period for Reply	o brite or and commandation (	uppeurs on an	, oover anout men age o	.orrespondence da	u1033			
THE MAILING DA  - Extensions of time may after SIX (6) MONTHS  - If the period for reply is - Failure to reply within the Any reply received by the second sec	TE OF THIS COMMUNICATION A eavailable under the provisions of 37 CFR from the mailing date of this communication becified above is less than thirty (30) days, a supecified above, the maximum statutory perion be set or extended period for reply will, by state of the communication of the communication. See 37 CFR 1.704(b).	N. R 1.136(a). In no ev reply within the stat iod will apply and w atute, cause the app	ent, however, may a reply be tin utory minimum of thirty (30) day ill expire SIX (6) MONTHS from dication to become ABANDONE	nely filed s will be considered timely the mailing date of this of D (35 U.S.C. § 133).				
Status								
1) Responsive	to communication(s) filed on 29	9 July 2003.						
2a) This action	<u> </u>							
3) Since this a								
closed in ac	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claim	s							
4)⊠ Claim(s) 1-2	25 is/are pending in the applicati	on.						
	4a) Of the above claim(s) is/are withdrawn from consideration.							
	is/are allowed.							
6)⊠ Claim(s) <u>1-2</u>	<u>?5</u> is/are rejected.							
7)	is/are objected to.							
8) Claim(s)	are subject to restriction and	d/or election re	equirement.					
Application Papers								
9) The specifica	ation is objected to by the Exam	iner.						
· · · · · · · · · · · · · · · · · · ·	(s) filed on is/are: a) ☐ a		objected to by the f	Examiner.				
	y not request that any objection to t		•					
Replacement	drawing sheet(s) including the corr	ection is require	ed if the drawing(s) is obj	ected to. See 37 CF	R 1.121(d).			
11)☐ The oath or o	declaration is objected to by the	Examiner. No	te the attached Office	Action or form PT	O-152.			
Priority under 35 U.S	.C. § 119							
12) Acknowledge	ment is made of a claim for forei	ian priority up	der 35 II.S.C. & 119(a)	-(d) or (f)				
	Some * c) None of:	ight phonity dis	· · · · · · · · · · · · · · · · · · ·	(4) 51 (1).				
· ·	ed copies of the priority docume	ents have bee	n received.	•				
	ed copies of the priority docume			on No				
3. Copie	s of the certified copies of the pr	riority docume	ents have been receive	ed in this National	Stage			
applio	ation from the International Bure	eau (PCT Rul	e 17.2(a)).					
* See the attac	ned detailed Office action for a li	ist of the certi	fied copies not receive	d.				
Attachment(s)								
<ol> <li>Notice of References</li> <li>Notice of Draftsperso</li> </ol>	Cited (PTO-892) n's Patent Drawing Review (PTO-948)		4) Interview Summary Paper No(s)/Mail Da					
3) 🛛 Information Disclosui	e Statement(s) (PTO-1449 or PTO/SB/	08)	5) Notice of Informal Page 1		)-152)			
Paper No(s)/Mail Dat	e <u>4/1/04</u> .		6) Other:					

Art Unit: 2681

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1, 2, 4-11, 17, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Sheffield, U.S. Patent No. 6,603,966.

Regarding claim 1, Sheffield discloses a system for providing high speed wireless data exchange, comprising: a cellular network comprising a plurality of base stations for communicating with a wireless transmit/receive unit (WTRU) (col. 3, lines 35-44); a device locator for determining the location of the WTRU (col. 4, lines 55-59); and at least one data pump, which supports high speed connection for wirelessly transferring information between said WTRU and said cellular network (col. 4, line 60-col. 5, line 8); and whereby said connection is automatically established when said WTRU is within a certain range of said data pump (col. 3, lines 35-49, col. 4, line 55-col. 5, line 15).

Regarding claim 2, Sheffield discloses the system of claim 1, wherein the device locator includes a GPS receiver operatively associated with the WTRU (col. 5, lines 42-56).

Art Unit: 2681

Regarding claim 4, Sheffield discloses the system of claim 1, further comprising: a database maintained by the system for comparing the determined location of the WTRU and locations of data pumps; and the wireless network providing the WTRU with data indicating the availability of a data pump when the determined location of the WTRU-is close to a location of a data pump (col. 6, line 33-col. 7, line 6).

Regarding claim 5, Sheffield discloses the system of claim 1 further comprising a data cache for storing data transferred between the network and the data pump, thereby permitting data transfer at rates exceeding a data transfer rate of a data connection between the data pump and remaining portions of the cellular network (col. 4, lines 55-64, col. 7, lines 23-44).

Regarding claim 6, Sheffield discloses the system of claim 1 further comprising a data cache for storing data transferred to the data pump, thereby permitting data transfer at rates exceeding a data transfer rate of a data connection between the data pump and remaining portions of the cellular network (col. 4, lines 55-64 and col. 7, lines 23-44).

Regarding claim 7, Sheffield discloses the system of claim 1 further comprising a data cache for storing data transferred from the data pump, thereby permitting data transfer at rates exceeding a data transfer rate of a data connection between the data pump and remaining portions of the cellular network (col. 4, lines 55-64 and col. 7, lines 23-44).

Regarding claims 8 and 21, Sheffield discloses in a digital wireless communications network, a method/network for providing increased data transfer rates

Art Unit: 2681

at specific locations, the method comprising: detecting a location of a WTRU and generating data concerning the location; comparing the data concerning the detected location to a database, the database including location information for localized base stations providing high data transfer rates; and effecting high transfer rate communication between the WTRU and one of the localized base stations when the comparing of the data indicates a coincidence between a location of the WTRU and the location of said one of the localized base stations (col. 4, line 55-col. 5, line 8, col. 6, line 33-col. 7, line 6).

Regarding claim 9, Sheffield discloses the method of claim 8, wherein the localized base stations include data pumps capable of effecting said high data transfer rates with WTRUs within the data pump's coverage region (col. 3, lines 35-49).

Regarding claims 10 and 22, Sheffield discloses the method of claims 8 and 21, further comprising providing dynamic tracking of the WTRU so as to predict which localized base station will be in communication with the WTRU and to provide said information concerning the detected location to the database in anticipation of the WTRU reaching a coverage area of one of the localized base stations (col. 3, line 50-col. 4, line 4).

Regarding claim 11, Sheffield discloses the method of claim 8, further comprising providing dynamic tracking of the WTRU so as to predict which localized base station will be able to communicate with the WTRU prior to data transfer negotiation, thereby facilitating said data transfer negotiation (col. 3, line 50-col. 4, line 4).

Art Unit: 2681

Regarding claim 17, Sheffield discloses a wireless transmit/receive unit (WTRU) capable of increased data transfer rates at specific locations, the WTRU comprising: a data processing circuit for receiving information from a wireless network concerning the availability of a localized base station providing high data transfer rates (col. 6, line 33-col. 7, line 6; a memory associated with the data processing circuit for storing data transferred between the WTRU and the localized base station (col. 5, lines 9-15); the data processing circuit for accepting communications with the localized base station; and a data processing circuit for effecting communication between the WTRU and one of the localized base stations when the comparing of the data indicates a coincidence between a location of the WTRU and the location of said one of the localized base stations (col. 3, lines 35-49, col. 4, line 55-col. 5, line 15).

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheffield in view of Bi et al (Bi), U.S. Patent No. 5,970,414.

Regarding claim 3, Sheffield discloses the system of claim 1, wherein the device locator receives triangulation data from the base stations, and resolves the triangulation data to determine a location of the WTRU.

Art Unit: 2681

In a similar field of endeavor, Bi discloses a method for estimating a mobile telephone's location. Bi further discloses wherein a mobile device is located by using triangulation techniques (col. 1, lines 7-33).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Sheffield with the teachings of Bi for the purpose of accurately locating a mobile unit.

5. Claims 12-16, 18-20 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheffield and well-known prior art.

Regarding claims 12, 18 and 23, Sheffield discloses the method of claims 8, 17 and 21 as described above. Sheffield further discloses "automatic" high transfer connection (i.e., as the mobile unit moves through the cellular network (col. 3, lines 35-49). Sheffield, however, fails to disclose receiving a data request for transfer data between the WTRU and the network; and responsive to the receipt of the data request effecting said high transfer communication.

The examiner contends that it is well known in the art that mobile stations can make requests before being transferring information, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Sheffield with mobile request as such a feature would only use system resources when the mobile station asks for connectivity.

Art Unit: 2681

Regarding claim 13, Sheffield as modified discloses the method of claim 12, comprising the network coordinating a connection of the WTRU with the localized base station (col. 3, lines 35-49).

Regarding claim 14, Sheffield as modified discloses the method of claim 12, comprising the network coordinating a handover of the WTRU between the localized base station and the remainder of the digital wireless communications network (col. 4, lines 22-47).

Regarding claims 15, 19 and 24, Sheffield as modified discloses the method of claims 12, 18 and 23 as described above and further discloses handoff.

Sheffield, however, fails to disclose a soft-handoff technique. The examiner contends, however, that soft handoff is well known in the art, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Sheffield with soft handoff in the event that the mobile unit is handoff between systems having the same frequency.

Regarding claims 16, 20 and 25, Sheffield discloses the method of claims 12, 19 and 23 as described above and further discloses handoff.

Sheffield, however, fails to disclose a hard-handoff technique. The examiner contends, however, that hard handoff is well known in the art, and the examiner takes official notice as such.

Art Unit: 2681

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Sheffield with soft handoff in the event that the mobile unit is handoff between systems having different frequencies.

#### **Conclusion**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Beamer whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday (alternate Fridays) 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temica M. Beamer Examiner Art Unit 2681

October 5, 2004

Jemica M Beamer